Minimum Standards for Library Automation in North Carolina

Background & Purpose

The State Library of North Carolina has developed these minimum standards for library automation in North Carolina to serve as guidelines for planning, Request for Proposal (RFP) preparation, and evaluation of library automated systems. Adherence to these standards is voluntary, except for purchase of library systems using grant funds administered by the State Library.

This document was developed in 1998 through consultation with a focus group of public library directors and staff who had recently purchased new local systems. These sessions confirmed the desirability of having clearly articulated standards to help local libraries in planning for new systems. Next, the draft standards were reviewed by three automation consultants/firms: Robert Burgin, RB Software and Consulting (North Carolina); RMG Consultants, Inc. (Illinois); and Joan Frye Williams (California). Their comments shaped the draft that was posted for feedback from the North Carolina library community. During the two-week feedback period, comments were received from four libraries. The document was approved and issued on August 10, 1998.

In 2002, the document was updated to reflect changes in library automation standards, available technologies, and the library automation marketplace. Certain items which dealt primarily with library practices were incorporated into a new document entitled "Best Practices for Automation in Libraries in North Carolina." The standards were reviewed and updated by two consultants: Robert Burgin, RB Software and Consulting; and Julie Blume Nye. The document was approved and issued on October 10, 2002.

Introduction

Overall, the State Library recommends that libraries select a system based on that system's ability to meet specifications, vendor viability and past performance, the proposed hardware configuration, and five-year costs.

In this document, minimum requirements for systems use the terms "**must**" or "**required.**" Characteristics that are preferred but not required use the terms "*may*," "*should*," and "*recommended*."

Contents

1. Cataloging Standards and Practices

1.1. The cataloging standard for bibliographic records is the Anglo-American Cataloging Rules, second edition (AACR2). Systems **must** be capable of accommodating catalog records that meet or exceed the first or minimal level of description in AACR2 (Encoding Level K), plus series statement and subject headings where applicable. Systems *should* be capable of accommodating catalog records that meet the second or full level of description in AACR2 (Enc Lvl I).

1.2. Systems **must** be capable of supporting the assigning of subject headings from a controlled vocabulary subject heading system/thesaurus provided for in the US MARC Format for Bibliographic Data, for example: Library of Congress Subject Headings (LCSH), Library of Congress Subject Headings for Children's Literature, National Library of Medicine's Medical Subject Headings (MeSH). Systems *should* capable of supporting the use of the latest edition of LCSH or LCSH for Children's Literature, if appropriate.

1.3. Systems **must** allow holdings information to be kept current.

1.4. Systems **must** allow the database to be maintained to ensure that individual bibliographic records accurately reflect the collection. Systems *should* allow additions and deletions to the collection and changes in holdings and locations to be recorded within three months.

1.5 Recognizing the impracticality of upgrading retrospective cataloging to full-level AACR2 standards, systems *should* allow libraries to follow the retrospective conversion guidelines in the latest edition of OCLC's *Bibliographic Formats and Standards*, 2nd edition.

1.6. Systems *should* allow abbreviated bibliographic records (below AACR2 minimal-level cataloging) to be used for materials of a transitory nature, such as those on order, in process, or having a short shelf life.

1.7. Systems *should* support libraries in the implementation of name, subject and series authority control.

1.8. Systems *should* allow barcode numbers to be entered in 949 or an appropriate 8XX field of the record. Systems *should* allow the tag selected to be used consistently throughout the entire database and *should* allow barcodes for each piece to be delimited separately.

2. Database

2.1. Systems **must** be capable of importing and exporting full bibliographic records in the US MARC Format for Bibliographic Data, current edition. Vendors *should* demonstrate their adherence to the US MARC Format for Bibliographic Data by having the data integrity of their system's US MARC import and export processes verified through the Library of Congress MARC Diagnostic Service.

2.2. Systems **must** be able to import and export MARC records by at least one of the following mechanisms: magnetic tape, floppy disk, or electronic transfer.

2.3. Systems **must** support records for all material formats (e.g., books, serials, audiovisuals, music).

2.4. Systems **must** support "see" and "see also" references. Support for the US MARC Format for Authority Data, current edition, is *recommended*.

2.5. Holdings records **must** be structured with summary holdings statements provided for multi-part items and serials containing data elements specified in the US MARC Format for Holdings Data and ANSI/NISO Z39.71 Level Three. Detailed holdings statements *should* be supplied according to ANSI/NISO Z39.71 Level Four.

2.6. Systems **must** keep logs of record deletions and additions so that this information can be periodically transmitted to the statewide union catalog on OCLC or other union lists.

2.7. Systems **must** support the US MARC Format for Community Information Data, current edition. Support for community information *may* be offered as a separate module, or integrated with the bibliographic catalog.

2.8. Systems **must** support the current version of US MARC, including format integration. Changes in US MARC formats *should* be implemented by the vendor within 12 months of implementation by OCLC.

2.9. Exported records **must** only be the current version of the record after all updates have been made.

2.10. Systems **must** provide the capability to export the entire database in US MARC format. The system *should* come with all the tools and utilities needed to output records. There should be no cost to output records, unless the library asks for assistance from the vendor.

2.11. Catalogs **must** be maintained online. CD-ROM-based catalogs are *unacceptable*.

2.12. Support for the US MARC Format for Holdings Data, current edition, is *recommended*.

3. Circulation

3.1. The circulation system **must** display location, local call number and availability (circulation status) of individual items in the collection. Location *should* refer to a particular library in a multi-library system, a specific collection within a library (e.g., reference), or a temporary location (e.g., reserve shelf).

3.2. The circulation system **must** include the capability of placing title- and item-level holds (reserves) on items for patrons. The system *should* permit patrons to place holds (reserves) on items by themselves.

3.3 Systems *should* be capable of notifying patrons when items that the patron has placed on hold are available for pick-up at the library. Systems *should* support notification by mail, telephone, and e-mail.

3.4. Systems **must** generate management reports and patron notices, such as overdue and fine notices.

3.5. The circulation system **must** not maintain patron/item linkages beyond those needed for current circulation, fine assessment or resolution, or those needed under very specialized circumstances (e.g., control of rare materials, or service to patrons with special needs).

3.6. The circulation system **must** offer security for patron and circulation files. Personal patron data and current circulation activity **must** be restricted to authorized individuals, in accordance with North Carolina General Statutes §125-19, Confidentiality of library user records.

3.7. Systems **must** assign a unique identification number to each patron record and to each item in the system. The number *should* be structured to uniquely identify the local library.

3.8. Patron records **must** be maintained to insure that the database accurately reflects the patron population. Additions, deletions and updates to the patron database *should* be recorded within one month.

3.9. Systems **must** use either the Code39 or Codabar format for barcode labels. Barcodes *should* have an eye-readable institutional name and barcode number printed on the label.

3.10. Systems *should* use 14-digit Codabar barcode labels with the following format:
digit 1 "2" for patron, "3" for item
digits 2-5 4-digit number identifying the library
digits 6-13 consecutive number
digit 14 check digit

3.11. Systems and barcode readers *should* be capable of interpreting at least 14 digits regardless of actual length of barcode on label.

3.12. Systems and barcode readers *should* be capable of using Code39 or Codabar barcodes from another library automation system for the same functionality as the local system's bar code.

4. Public Access Catalog

4.1. Online catalogs serving multi-library systems **must** show holdings and circulation status for all locations. The database **must** incorporate all outlets and have the capability of showing holdings and circulation status at all locations. (The library is *not required* to implement automation at all locations simultaneously; locations *may* be phased in over time.)

4.2. Online catalogs **must** display the current location, call number and availability (circulation status) of individual items in the collection. Location *should* refer to a particular library in a multi-library system, a specific collection within a library (e.g., reference), or a temporary location (e.g., reserve shelf).

4.3. Brief (labeled) record displays for patrons **must** be available. The library *should* be able to specify which data elements display to patrons. The system *should* also be capable of displaying records in MARC (tagged) form at staff workstations.

4.4. Online catalogs **must** be searchable by authors, titles, series, and subject headings.

4.5. Online catalogs **must** offer keyword searching by author, title and subject fields. Keyword searching of notes and other fields is *recommended*.

4.6. The library **must** be able to specify which fields, subfields, and fixed field elements will be included in each index for searching.

4.7. Online catalogs **must** have a graphical interface implemented using an Internet browser.

4.8. Online catalog interfaces *should* conform to the W3C web content accessibility guidelines and to federal Section 508 accessibility standards.

4.9. Systems *should* permit use of multiple operators in the same search argument and the use of parenthesis or other conventions to group terms connected by an operator.

4.10. Online catalogs *should* support qualification (limiting) of phrase or keyword searches or result sets by date of publication, language, bibliographic or physical format, and location.

4.11. Systems *should* provide right-hand truncation of phrase searches. It *may* either be automatic, or the searcher *may* be required to invoke it. If automatic, it *should* be possible for the searcher to override it.

4.12. Systems *should* provide for right-hand truncation of keyword search terms, when invoked by the searcher. Systems *should* provide for internal truncation ("masking" or "wild cards") of keyword search terms when invoked by the searcher.

4.13. Online catalogs *should* be searchable by ISBN, ISSN, LCCN, system control number, local call number, SuDocs number, GPO stock number, and other standard, "unique" identifiers, at least by library staff.

4.14. Systems *should* offer Boolean searching (AND, OR and NOT) and the capability to browse indexes or wordlists. Systems offering a character-based interface *should* adhere to ISO 8777 (Commands for Interactive Text Searching).

4.15. Systems *should* have help information available online to patrons to explain the use of advanced searching features and patron-initiated services.

4.16. Systems *should* provide the capability for patrons to place requests for materials not held in the local catalog ("patron-initiated interlibrary loan").

4.17. Systems *should* have the ability to mark records within a result set for printing out a bibliography.

4.18. Systems *should* support authentication for user access to restricted resources.

4.19. Systems *should* support user-customizable interfaces to library resources.

5. Remote Access

5.1. Systems **must** support remote access through the latest release of ANSI/NISO Z39.50 clients and servers. Vendors *should* demonstrate that their server is accessible by at least one Z39.50 client in addition to their own client.

5.2. Systems **must** provide remote access via the Internet using TCP/IP. Systems with more than 50,000 unique bibliographic records *should* provide remote access for at least two simultaneous users.

5.3. Systems **must** support the HTTP protocol.

5.4. Z39.50 search displays *should* include bibliographic data, holdings, and circulation status.

5.5. Systems *should* provide online access to the resources of other libraries, and display the resources of the library to other libraries, via the Internet.

5.6. Systems *should* be able to operate in conjunction with a firewall.

6. System Components

6.1. Systems **must** include, at a minimum, modules for database creation and maintenance (cataloging), public access (OPAC), and circulation. Libraries *should* install multi-purpose, integrated, online systems including circulation, public access catalog, cataloging, serials, and acquisitions modules.

6.2. Systems shared between libraries **must** allow local policies and parameters to be determined and managed separately for each member.

6.3. Systems serving multiple service outlets (locations) **must** allow local policies and parameters to be determined and managed separately for each outlet.

7. Infrastructure

7.1. Local area networks **must** use the latest version of one of the IEEE 802.XX standards. Ethernet is *recommended*. Local area networks **must** support TCP/IP and all network devices above the workstation *should* be addressable and manageable using the Simple Network Management Protocol (SNMP).

7.2. All internal wiring **must** meet or exceed the Category 5 standard.

7.3. Dedicated connections between library branches **must** provide a minimum bandwidth of 56 Kbps. Dial-access connections between branches **must** provide for at least 33.6 Kbps. It **must** be possible to add capacity (bandwidth) as necessary.

7.4. Workstations and printers **must** support the full ASCII character set. Adherence to ANSI/NISO Z39.47 (the ALA extended character set) and UNICODE is *recommended*.

7.5. A firewall is *recommended* for all automated system implementations.

8. Vendor Support

8.1. Vendors **must** provide training on-site at the library or at the vendor site for library staff who will administer and use those modules. Training **must** be provided for circulation, cataloging and PAC modules; training on other modules is optional, at the discretion of the library.

8.2. Vendors **must** provide documentation on each module purchased. Documentation *may* be provided in hardcopy or electronic form, or both.